

Fig. 1

Dx3860 Vh

1	GAA GTG AAG CTG GTG GAG TCT GGG GGA GGC TTA GTG AAG OCT GGA GGG TOC CTG AAA CTC	60
1	Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly Ser Leu Lys Leu	20
61	TOC TGT GCA GCC TCT GGA TTC ACT TTC AGT TOC TAT GCC ATG TCT TGG GTT CGC CAG ACT	120
21	Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser Trp Val Arg Gln Thr	40
	-----CDR1-IMGT-----	
121	CCA GAG AAG AGG CTG GAG TGG GTC GCA TOC TTT AGT AAT GGT GGT ATC ACC TAC TAT CCA	180
41	Pro Glu Lys Arg Leu Glu Trp Val Ala Ser Phe Ser Asn Gly Gly Ile Thr Tyr Tyr Pro	60
	-----CDR2-IMGT-----	
181	GAC AGT GTG AAG GGC CGA TTC ACC ATC TOC AGA GAT AAT GCC AGG AAC ATC CTG TAC CTG	240
61	Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu	80
241	CAA ATG ACC AGT CTG AGG TCT GAG GAC ACG GCC ATT TAT TAC TGT GCA AGA GGC TAT GGT	300
81	Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Arg Gly Tyr Gly	100
	-----CDR3-IMGT-----	
301	OCT GCT TAC TGG GGC CAA GGG ACT CTG GTC ACT GTC TCT GCA	342
101	Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala	114

Fig. 2

Dx3860 VL

1	CAG GCT GTT GTG ACT CAG GAA TCT GCA CTC ACC ACA TCA OCT GGT GAA ACA GTC ACA CTC	60
1	Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Glu Thr Val Thr Leu	20
61	ACT TGT CGC TCA AGT ACT GGG GCT GTT ACA ACT CTT AAC TAT GCC AAC TGG GTC CAA GAA	120
21	Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Leu Asn Tyr Ala Asn Trp Val Gln Glu	40
	-----CDR1-IMGT-----	
121	AAA CCA GAT CAT TTA TTC ACT GGT CTA ATA GGT AAT ACC AAC AAC CGA GCT CCA GGT GTT	180
41	Lys Pro Asp His Leu Phe Thr Gly Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val	60
	-----CDR2-IMGT-----	
181	OCT GCC AGA TTC TCA GGC TOC CTG ATT GGA GAC AAG GCT GCC CTC ACC ATC ACA GGG GCA	240
61	Pro Ala Arg Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala	80
241	CAG ACT GAG GAT GAG GCA ATA TAT TTC TGT GCT CTA TGG TAC AGC AAC CAT TTG GTG TTC	300
81	Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Ser Asn His Leu Val Phe	100
	-----CDR3-IMGT-----	
301	GGT GGA GGA ACC AAA CTG ACT GTC CTA GGC	330
101	Gly Gly Gly Thr Lys Leu Thr Val Leu Gly	110

Fig. 3

Dx3150 VH

1	GAT GTA CAG CTT CAG GAG TCA GGA OCT GGC CTC GTG AAA OCT TCT CAG TCT CTG TCT CTC	60
1	Asp Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln Ser Leu Ser Leu	20
61	ACC TGT TCT GTC ACT GGC TAC TCC ATC ACC AGT GGC TTT TAC TGG AAC TGG ATC CGG CAG	120
21	Thr Cys Ser Val Thr Gly Tyr Ser Ile Thr Ser Gly Phe Tyr Trp Asn Trp Ile Arg Gln	40
	-----CDR1-IMGT-----	
121	TTT OCA GGA AAC AAA CTG GAA TGG ATG GGC TAC ATA AGC TAC GAC GGT TAC AAT AAT TAC	180
41	Phe Pro Gly Asn Lys Leu Glu Trp Met Gly Tyr Ile Ser Tyr Asp Gly Tyr Asn Asn Tyr	60
	-----CDR2-IMGT-----	
181	AAC OCA TTT CTC AAA AAT OGA GTG TCC ATC ACT CGT GAC ACA TCT GAG AAC CAG TTT TTC	240
61	Asn Pro Phe Leu Lys Asn Arg Val Ser Ile Thr Arg Asp Thr Ser Glu Asn Gln Phe Phe	80
241	CTG AAG TTG CAT TCT GTG ACT ACT GAG GAC ACA GCT ACA TAT TAC TGT GTA AGT TAC GGT	300
81	Leu Lys Leu His Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys Val Ser Tyr Gly	100
301	AGT CGG AGG GGA GTT ACC TAC TGG GGC CAA GGC ACC ACT CTC ACA GTC TCC TCA	354
101	Ser Arg Arg Gly Val Thr Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser	118
	-----CDR3-IMGT-----	

Fig. 4

Dx3150 VL

1	CAG GCT GTT GTG ACT CAG GAA TCT GCA CTC ACC ACA TCA CCT GGT GAA ACA GTC ACA CTC	60
1	Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Glu Thr Val Thr Leu	20
61	ACT TGT CGC TCA AGT ACT GGG GCT GTT ACA ACT AGT AAC TAT GCC AAC TGG GTC CAA GAA	120
21	Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser Asn Tyr Ala Asn Trp Val Gln Glu	40
	-----CDR1-IMGT-----	
121	AAA OCA GAT CAT TTA TTC ACT GGT CTA ATA GGT AAT ACC AAC AAC OGA GCT CCA GGT GTT	180
41	Lys Pro Asp His Leu Phe Thr Gly Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val	60
	-----CDR2-IMGT-----	
181	OCT GGC AGA TTC TCT GGC TCC CTG ATT GGA GAC AAG GCT GCC CTC ACC ATC ACA GGG GCA	240
61	Pro Ala Arg Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala	80
241	CAG ACT GAG GAT GAG GCG ATA TAT TTC TGT GCT CTT TGG TAC AAC ACC CAT TTG GTG TTC	300
81	Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Asn Thr His Leu Val Phe	100
	-----CDR3-IMGT-----	
301	GGT GGA GGA ACC AGA CTG ACT GTC CTA GGC	330
101	Gly Gly Gly Thr Arg Leu Thr Val Leu Gly	110

Fig. 5

D x 3860 H L sc Fv

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1  GAA  STG  AAG  CTG  GTG  GAG  TCC  GGG  GGA  GGC  TTA  GTG  AAG  CCT  GGA  GGG  TCC  CTG  AAA  CTC      60
  CTT  CAC  TTC  GAC  CAC  CTC  AGG  CCC  CCT  CCG  AAT  CAC  TTC  GGA  CCT  CCC  AGG  GAC  TTT  GAG
1  Glu-Val-Lys-Leu-Val-Glu-Ser-Gly-Gly-Gly-Leu-Val-Lys-Pro-Gly-Gly-Ser-Leu-Lys-Leu      20
  VH →

161 TCC  TGT  GCA  GCC  TCT  GGA  TTC  ACT  TTC  AGT  TCC  TAT  GCC  ATG  TCT  TGG  GTT  CGC  CAG  ACT      120
    AGG  ACA  CGT  CGG  AGA  CCT  AAG  TGA  AAG  TCA  AGG  ATA  CGG  TAC  AGA  ACC  CAA  GCG  GTC  TGA
21  Ser-Cys-Ala-Ala-Ser-Gly-Phe-Thr-Phe-Ser-Ser-Tyr-Ala-Met-Ser-Trp-Val-Arg-Gln-Thr      40

121 CCA  GAG  AAG  AGG  CTG  GAG  TGG  GTC  GCA  TCC  TTT  AGT  AAT  GGT  GGT  ATC  ACC  TAC  TAT  CCA      180
    GGT  CTC  TTC  TCC  GAC  CTC  ACC  CAG  CGT  AGG  AAA  TCA  TTA  CCA  CCA  TAG  TGG  ATG  ATA  GGT
41  Pro-Glu-Lys-Arg-Leu-Glu-Trp-Val-Ala-Ser-Phe-Ser-Asn-Gly-Gly-Ile-Thr-Tyr-Tyr-Pro      60

181 GAC  AGT  GTG  AAG  GGC  CGA  TTC  ACC  ATC  TCC  AGA  GAT  AAT  GCC  AGG  AAC  ATC  CTG  TAC  CTG      240
    CTG  TCA  CAC  TTC  CCG  GCT  AAG  TGG  TAG  AGG  TCT  CTA  TTA  CGG  TCC  TTG  TAG  GAC  ATG  GAC
61  Asp-Ser-Val-Lys-Gly-Arg-Phe-Thr-Ile-Ser-Arg-Asp-Asn-Ala-Arg-Asn-Ile-Leu-Tyr-Leu      80

241 CAA  ATG  ACC  AGT  CTG  AGG  TCT  GAG  GAC  ACG  GCC  ATT  TAT  TAC  TGT  GCA  AGA  GGC  TAT  GGT      300
    GTT  TAC  TGG  TCA  GAC  TCC  AGA  CTC  CTG  TGC  CGG  TAA  ATA  ATG  ACA  CGT  TCT  CCG  ATA  CCA
81  Gln-Met-Thr-Ser-Leu-Arg-Ser-Glu-Asp-Thr-Ala-Ile-Tyr-Tyr-Cys-Ala-Arg-Gly-Tyr-Gly      100

301 CCT  GCT  TAC  TGG  GGC  CAA  GGT  ACC  CTG  GTC  ACT  GTC  TCT  TCC  GGA  GGA  GGC  GGT  TCA  GGC      360
    GGA  CGA  ATG  ACC  CCG  GTT  CCA  TGG  GAC  CAG  TGA  CAG  AGA  AGG  CCT  CCT  CCG  CCA  AGT  CCG
101 Pro-Ala-Tyr-Trp-Gly-Gln-Gly-Thr-Leu-Val-Thr-Val-Ser-Ser-Ser-Gly-Gly-Gly-Ser-Gly      120

361 GGA  GGT  GGC  TCT  GGC  GGT  GGC  GGA  TCC  CAG  GCT  GTT  GTG  ACT  CAG  GAA  TCT  GCA  CTC  ACC      420
    CCT  CCA  CCG  AGA  CCG  CCA  CCG  CCT  AGG  GTC  CGA  CAA  CAC  TGA  GTC  CTT  AGA  CGT  GAG  TGG
121 Gly-Ser-Ile-Ser-His-Gly-Gly-Tyr-Gly-Ser-Gln-Ala-Val-Val-Thr-Gln-Glu-Ser-Ala-Leu-Thr      140
    Linker VL →

421 ACA  TCA  CCT  GGT  GAA  ACA  GTC  ACA  CTC  ACT  TGT  CGC  TCA  AGT  ACT  GGG  GCT  GTT  ACA  ACT      480
    TGT  AGT  GGA  CCA  CTT  TGT  CAG  TGT  GAG  TGA  ACA  GCG  AGT  TCA  TGA  CCC  CGA  CAA  TGT  TGA
141 Thr-Ser-Pro-Gly-Glu-Thr-Val-Thr-Leu-Thr-Cys-Arg-Ser-Ser-Thr-Gly-Ala-Val-Thr-Thr      160

481 CTT  AAC  TAT  GCC  AAC  TGG  GTC  CAA  GAA  AAA  CCA  GAT  CAT  TTA  TTC  ACT  GGT  CTA  ATA  GGT      540
    GAA  TTG  ATA  CGG  TTG  ACC  CAG  GTT  CTT  TTT  GGT  CTA  GTA  AAT  AAG  TGA  CCA  GAT  TAT  CCA
161 Leu-Asn-Tyr-Ala-Asn-Trp-Val-Gln-Glu-Lys-Pro-Asp-His-Leu-Phe-Thr-Gly-Leu-Ile-Gly      180

541 AAT  ACC  AAC  AAC  CGA  GCT  CCA  GGT  GTT  CCT  GCC  AGA  TTC  TCA  GGC  TCC  CTG  ATT  GGA  GAC      600
    TTA  TGG  TTG  TTG  GCT  CGA  GGT  CCA  CAA  GGA  CCG  TCT  AAG  AGT  CCG  AGG  GAC  TAA  CCT  CTG
181 Asn-Thr-Asn-Asn-Arg-Ala-Pro-Gly-Val-Pro-Ala-Arg-Phe-Ser-Gly-Ser-Leu-Ile-Gly-Asp      200

601 AAG  GCT  GCC  CTC  ACC  ATC  ACA  GGG  GCA  CAG  ACT  GAG  GAT  GAG  GCA  ATA  TAT  TTC  TGT  GCT      660
    TTC  CGA  CGG  GAG  TGG  TAG  TGT  CCC  CGT  GTC  TGA  CTC  CTA  CTC  CGT  TAT  ATA  AAG  ACA  CGA
201 Lys-Ala-Ala-Leu-Thr-Ile-Thr-Gly-Ala-Gln-Thr-Glu-Asp-Glu-Ala-Ile-Tyr-Phe-Cys-Ala      220

661 CTA  TGG  TAC  AGC  AAC  CAT  TTG  GTG  TTC  GGT  GGA  GGA  ACC  AAA  CTG  ACT  GTC  CTA  GGC      717
    GAT  ACC  ATG  TCG  TTG  GTA  AAC  CAC  AAG  CCA  CCT  CCT  TGG  TTT  GAC  TGA  CAG  GAT  CCG
221 Leu-Trp-Tyr-Ser-Asn-His-Leu-Val-Phe-Gly-Gly-Thr-Lys-Leu-Thr-Val-Leu-Gly      239

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Fig. 6

D x 3860 L H sc Fv

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1  CAG GCT GTT GTG ACT CAG GAA TCT GCA CTC ACC ACA TCA CCT GGT GAA ACA GTC ACA CTC 60
  GTC CGA CAA CAC TGA GTC CTT AGA CGT GAG TGG TGT AGT GGA CCA CTT TGT CAG TGT GAG
1  Gln-Ala-Val-Val-Thr-Gln-Glu-Ser-Ala-Leu-Thr-Thr-Ser-Pro-Gly-Glu-Thr-Val-Thr-Leu 20
  VI →
61  ACT TGT CGC TCA AGT ACT GGG GCT GTT ACA ACT CTT AAC TAT GCC AAC TGG GTC CAA GAA 120
  TGA ACA GCG AGT TCA TGA CCC CGA CAA TGT TGA GAA TTG ATA CGG TTG ACC CAG GTT CTT
21  Thr-Cys-Arg-Ser-Ser-Thr-Gly-Ala-Val-Thr-Thr-Leu-Asn-Tyr-Ala-Asn-Trp-Val-Gln-Glu 40

121  AAA CCA GAT CAT TTA TTC ACT GGT CTA ATA GGT AAT ACC AAC AAC CGA GCT CCA GGT GTT 180
  TTT GGT CTA GTA AAT AAG TGA CCA GAT TAT CCA TTA TGG TTG TTG GCT CGA GGT CCA CAA
41  Lys-Pro-Asp-His-Leu-Phe-Thr-Gly-Leu-Ile-Gly-Asn-Thr-Asn-Asn-Arg-Ala-Pro-Gly-Val 60

181  CCT GCC AGA TTC TCA GGC TCC CTG ATT GGA GAC AAG GCT GCC CTC ACC ATC ACA GGG GCA 240
  GGA CGG TCT AAG AGT CCG AGG GAC TAA CCT CTG TTC CGA CGG GAG TGG TAG TGT CCC CGT
61  Pro-Ala-Arg-Phe-Ser-Gly-Ser-Leu-Ile-Gly-Asp-Lys-Ala-Ala-Leu-Thr-Ile-Thr-Gly-Ala 80

241  CAG ACT GAG GAT GAG GCA ATA TAT TTC TGT GCT CTA TGG TAC AGC AAC CAT TTG GTG TTC 300
  GTC TGA CTC CTA CTC CGT TAT ATA AAG ACA CGA GAT ACC ATG TCG TTG GTA AAC CAC AAG
81  Gln-Thr-Glu-Asp-Glu-Ala-Ile-Tyr-Phe-Cys-Ala-Leu-Trp-Tyr-Ser-Asn-His-Leu-Val-Phe 100

301  GGT GGA GGA ACC AAA CTG ACT GTC CTA GGC TCC GGA GGA GGC GGT TCA GGC GGA GGT GGC 360
  CCA CCT CCT TGG TTT GAC TGA CAG GAT CCG AGG CCT CCT CCG CCA AGT CCG CCT CCA CCG
101  Gly-Gly-Gly-Thr-Lys-Leu-Thr-Val-Leu-Gly-Ser-Gly-Gly-Gly-Ser-Gly-Gly-Gly-Gly-Gly 120
  Linker
361  TCT GGC GGT GGC GGA TCC GAA GTG AAG CTG GTG GAG TCC GGG GGA GGC TTA GTG AAG CCT 420
  AGA CCG CCA CCG CCT AGG CTT CAC TTC GAC CAC CTC AGG CCC CCT CCG AAT CAC TTC GGA
121  Ser-Gly-Gly-Gly-Gly-Ser-Glu-Val-Lys-Leu-Val-Glu-Ser-Gly-Gly-Gly-Leu-Val-Lys-Pro 140
  VH →
421  GGA GGG TCC CTG AAA CTC TCC TGT GCA GCC TCT GGA TTC ACT TTC AGT TCC TAT GCC ATG 480
  CCT CCC AGG GAC TTT GAG AGG ACA CGT CGG AGA CCT AAG TGA AAG TCA AGG ATA CGG TAC
141  Gly-Gly-Ser-Leu-Lys-Leu-Ser-Cys-Ala-Ala-Ser-Gly-Phe-Thr-Phe-Ser-Ser-Tyr-Ala-Met 160

481  TCT TGG GTT CGC CAG ACT CCA GAG AAG AGG CTG GAG TGG GTC GCA TCC TTT AGT AAT GGT 540
  AGA ACC CAA GCG GTC TGA GGT CTC TTC TCC GAC CTC ACC CAG CGT AGG AAA TCA TTA CCA
161  Ser-Trp-Val-Arg-Gln-Thr-Pro-Glu-Lys-Arg-Leu-Glu-Trp-Val-Ala-Ser-Phe-Ser-Asn-Gly 180

541  GGT ATC ACC TAC TAT CCA GAC AGT GTG AAG GGC CGA TTC ACC ATC TCC AGA GAT AAT GCC 600
  CCA TAG TGG ATG ATA GGT CTG TCA CAC TTC CCG GCT AAG TGG TAG AGG TCT CTA TTA CCG
181  Gly-Ile-Thr-Tyr-Tyr-Pro-Asp-Ser-Val-Lys-Gly-Arg-Phe-Thr-Ile-Ser-Arg-Asp-Asn-Ala 200

601  AGG AAC ATC CTG TAC CTG CAA ATG ACC AGT CTG AGG TCT GAG GAC ACG GCC ATT TAT TAC 660
  TCC TTG TAG GAC ATG GAC GTT TAC TGG TCA GAC TCC AGA CTC CTG TGC CGG TAA ATA ATG
201  Arg-Asn-Ile-Leu-Tyr-Leu-Gln-Met-Thr-Ser-Leu-Arg-Ser-Glu-Asp-Thr-Ala-Ile-Tyr-Tyr 220

661  TGT GCA AGA GGC TAT GGT CCT GCT TAC TGG GGC CAA GGG ACT CTG GTC ACT GTC TCT GCA 720
  ACA CGT TCT CCG ATA CCA GGA CGA ATG ACC CCG GTT CCC TGA GAC CAG TGA CAG AGA CGT
221  Cys-Ala-Arg-Gly-Tyr-Gly-Pro-Ala-Tyr-Trp-Gly-Gln-Gly-Thr-Leu-Val-Thr-Val-Ser-Ala 240

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1	GAT GTA CAG CTT CAG GAG TCA GGA CCT GGC CTC GTG AAA CCT TCT CAG TCT CTG TCT CTC	60
	CTA CAT GTC GAA GTC CTC AGT CCT GGA CCG GAG CAC TTT GGA AGA GTC AGA GAC AGA GAG	
1	Asp-Val-Gln-Leu-Gln-Glu-Ser-Gly-Pro-Gly-Leu-Val-Lys-Pro-Ser-Gln-Ser-Leu-Ser-Leu	20
	VH →	
61	ACC TGT TCT GTC ACT GGC TAC TCC ATC ACC AGT GGC TTT TAC TGG AAC TGG ATT CGG CAG	120
	TGG ACA AGA CAG TGA CCG ATG AGG TAG TGG TCA CCG AAA ATG ACC TTG ACC TAA GCC GTC	
21	Thr-Cys-Ser-Val-Thr-Gly-Tyr-Ser-Ile-Thr-Ser-Gly-Phe-Tyr-Trp-Asn-Trp-Ile-Arg-Gln	40
121	TTT CCA GGA AAC AAA CTG GAA TGG ATG GGC TAC ATA AGC TAC GAC GGT TAC AAT AAT TAC	180
	AAA GGT CCT TTG TTT GAC CTT ACC TAC CCG ATG TAT TCG ATG CTG CCA ATG TTA TTA ATG	
41	Phe-Pro-Gly-Asn-Lys-Leu-Glu-Trp-Met-Gly-Tyr-Ile-Ser-Tyr-Asp-Gly-Tyr-Asn-Asn-Tyr	60
181	AAC CCA TTT CTC AAA AAT CGA GTG TCC ATC ACT CGT GAC ACA TCT GAG AAC CAG TTT TTC	240
	TTG GGT AAA GAG TTT TTA GCT CAC AGG TAG TGA GCA CTG TGT AGA CTC TTG GTC AAA AAG	
61	Asn-Pro-Phe-Leu-Lys-Asn-Arg-Val-Ser-Ile-Thr-Arg-Asp-Thr-Ser-Glu-Asn-Gln-Phe-Phe	80
241	CTG AAG TTG CAT TCT GTG ACT ACT GAG GAC ACA GCT ACA TAT TAC TGT GTA AGT TAC GGT	300
	GAC TTC AAC GTA AGA CAC TGA TGA CTC CTG TGT CGA TGT ATA ATG ACA CAT TCA ATG CCA	
81	Leu-Lys-Leu-His-Ser-Val-Thr-Thr-Glu-Asp-Thr-Ala-Thr-Tyr-Tyr-Cys-Val-Ser-Tyr-Gly	100
301	AGT CGG AGG GGA GTT ACC TAC TGG GGC CAA GGT ACC ACT CTC ACA GTC TCC TCC GGA GGA	360
	TCA GCC TCC CCT CAA TGG ATG ACC CCG GTT CCA TGG TGA GAG TGT CAG AGG AGG CCT CCT	
101	Ser-Arg-Arg-Gly-Val-Thr-Tyr-Trp-Gly-Gln-Gly-Thr-Thr-Leu-Thr-Val-Ser-Ser- Leu-Ser	120
361	GGC GGT TCA GGC GGA GGT GGC TCT GGC GGT GGC GGA TCC CAG GCT GTT GTG ACT CAG GAA	420
	CCG CCA AGT CCG CCT CCA CCG AGA CCG CCA CCG CCT AGG GTC CGA CAA CAC TGA GTC CTT	
121	Val-Ser-Val-Thr-Gly-Phe-Gly-Ser-Thr-Gly-Ser-Thr-Gly-Ser-Thr-Gly-Ser-Thr-Gly-Ser	140
	Linker VL →	
421	TCT GCA CTC ACC ACA TCA CCT GGT GAA ACA STC ACA CTC ACT TGT CGC TCA AGT ACT GGG	480
	AGA CGT GAG TGG TGT AGT SGA CCA CTT TGT CAG TGT GAG TGA ACA GCG AGT TCA TGA CCC	
141	Ser-Ala-Leu-Thr-Thr-Ser-Pro-Gly-Glu-Thr-Val-Thr-Leu-Thr-Cys-Arg-Ser-Ser-Thr-Gly	160
481	GCT GTT ACA ACT AGT AAC TAT GCC AAC TGG GTC CAA GAA AAA CCA GAT CAT TTA TTC ACT	540
	CGA CAA TGT TGA TCA TTG ATA CGG TTG ACC CAG GTT CTT TTT GGT CTA GTA AAT AAG TGA	
161	Ala-Val-Thr-Thr-Ser-Asn-Tyr-Ala-Asn-Trp-Val-Gln-Glu-Lys-Pro-Asp-His-Leu-Phe-Thr	180
541	GGT CTA ATA GGT AAT ACC AAC AAC CGA GCT CCA GGT GTT CCT GCC AGA TTC TCT GGC TCC	600
	CCA GAT TAT CCA TTA TGG TTG TTG GCT CGA GGT CCA CAA GGA CGG TCT AAG AGA CCG AGG	
181	Gly-Leu-Ile-Gly-Asn-Thr-Asn-Asn-Arg-Ala-Pro-Gly-Val-Pro-Ala-Arg-Phe-Ser-Gly-Ser	200
601	CTG ATT GGA GAC AAG GCT GCC CTC ACC ATC ACA GGG GCA CAG ACT GAG GAT GAG GCG ATA	660
	GAC TAA CCT CTG TTC CGA CGG GAG TGG TAG TGT CCC CGT GTC TGA CTC CTA CTC CCG TAT	
201	Leu-Ile-Gly-Asp-Lys-Ala-Ala-Leu-Thr-Ile-Thr-Gly-Ala-Gln-Thr-Glu-Asp-Glu-Ala-Ile	220
661	TAT TTC TGT GCT CTT TGG TAC AAC ACC CAT TTG GTG TTC GGT GGA GGA ACC AGA CTG ACT	720
	ATA AAG ACA CGA GAA ACC ATG TTG TGG GTA AAC CAC AAG CCA CCT CCT TGG TCT GAC TGA	
221	Tyr-Phe-Cys-Ala-Leu-Trp-Tyr-Asn-Thr-His-Leu-Val-Phe-Gly-Gly-Thr-Arg-Leu-Thr	240
721	GTC CTA GGC	729
	CAG GAT CCG	
241	Val-Leu-Gly	243

Fig. 8

D x 3150 LH sp Fv

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1  CAG GCT GTT GTG ACT CAG GAA TCT GCA CTC ACC ACA TCA CCT GGT GAA ACA GTC ACA CTC 60
   GTC CGA CAA CAC TGA GTC CTT AGA CGT GAG TGG TGT AGT GGA CCA CTT TGT CAG TGT GAG
1  Gln-Ala-Val-Val-Thr-Gln-Glu-Ser-Ala-Leu-Thr-Thr-Ser-Pro-Gly-Glu-Thr-Val-Thr-Leu 20
   -VL→
61  ACT TGT CGC TCA AGT ACT GGG GCT GTT ACA ACT AGT AAC TAT GCC AAC TGG GTC CAA GAA 120
   TGA ACA GCG AGT TCA TGA CCC CGA CAA TGT TGA TCA TTG ATA CGG TTG ACC CAG GTT CTT
21  Thr-Cys-Arg-Ser-Ser-Thr-Gly-Ala-Val-Thr-Thr-Ser-Asn-Tyr-Ala-Asn-Trp-Val-Gln-Glu 40

121  AAA CCA GAT CAT TTA TTC ACT GGT CTA ATA GGT AAT ACC AAC AAC CGA GCT CCA GGT GTT 180
   TTT GGT CTA GTA AAT AAG TGA CCA GAT TAT CCA TTA TGG TTG TTG GCT CGA GGT CCA CAA
41  Lys-Pro-Asp-His-Leu-Phe-Thr-Gly-Leu-Ile-Gly-Asn-Thr-Asn-Asn-Arg-Ala-Pro-Gly-Val 60

181  CCT GCC AGA TTC TCT GGC TCC CTG ATT GGA GAC AAG GCT GCC CTC ACC ATC ACA GGG GCA 240
   GGA CGG TCT AAG AGA CCG AGG GAC TAA CCT CTG TTC CGA CGG GAG TGG TAG TGT CCC CGT
61  Pro-Ala-Arg-Phe-Ser-Gly-Ser-Leu-Ile-Gly-Asp-Lys-Ala-Ala-Leu-Thr-Ile-Thr-Gly-Ala 80

241  CAG ACT GAG GAT GAG GCG ATA TAT TTC TGT GCT CTT TGG TAC AAC ACC CAT TTG GTG TTC 300
   GTC TGA CTC CTA CTC CGC TAT ATA AAG ACA CGA GAA ACC ATG TTG TGG GTA AAC CAC AAG
81  Gln-Thr-Glu-Asp-Glu-Ala-Ile-Tyr-Phe-Cys-Ala-Leu-Trp-Tyr-Asn-Thr-His-Leu-Val-Phe 100

301  GGT GGA GGA ACC AGA CTG ACT GTC CTA GGC TCC GGA GGA GGC GGT TCA GGC GGA GGT GGC 360
   CCA CCT CCT TGG TCT GAC TGA CAG GAT CCG AGG CCT CCT CCG CCA AGT CCG CCT CCA CCG
101  Gly-Gly-Gly-Thr-Arg-Leu-Thr-Val-Leu-Gly-Ser-Gly-Gly-Ile-Ile-Ser-Gly-Ile-Ile-Gly 120
   Linker
361  TCT GGC GGT GGC GGA TCC GAT GTA CAG CTT CAG GAG TCA GGA CCT GGC CTC GTG AAA CCT 420
   AGA CCG CCA CCG CCT AGG CTA CAT GTC GAA GTC CTC AGT CCT GGA CCG GAG CAC TTT GGA
121  Ser-Gln-Cys-Gln-Gly-Ser-Asp-Val-Gln-Leu-Gln-Glu-Ser-Gly-Pro-Gly-Leu-Val-Lys-Pro 140
   -VII→
421  TCT CAG TCT CTG TCT CTC ACC TGT TCT GTC ACT GGC TAC TCC ATC ACC AGT GGC TTT TAC 480
   AGA GTC AGA GAC AGA GAG TGG ACA AGA CAG TGA CCG ATG AGG TAG TGG TCA CCG AAA ATG
141  Ser-Gln-Ser-Leu-Ser-Leu-Thr-Cys-Ser-Val-Thr-Gly-Tyr-Ser-Ile-Thr-Ser-Gly-Phe-Tyr 160

481  TGG AAC TGG ATT CGG CAG TTT CCA GGA AAC AAA CTG GAA TGG ATG GGC TAC ATA AGC TAC 540
   ACC TTG ACC TAA GCC GTC AAA GGT CCT TTG TTT GAC CTT ACC TAC CCG ATG TAT TCG ATG
161  Trp-Asp-Trp-Ile-Arg-Gln-Phe-Pro-Gly-Asn-Lys-Leu-Glu-Trp-Met-Gly-Tyr-Ile-Ser-Tyr 180

541  GAC GGT TAC AAT AAT TAC AAC CCA TTT CTC AAA AAT CGA GTG TCC ATC ACT CGT GAC ACA 600
   CTG CCA ATG TTA TTA ATG TTG GGT AAA GAG TTT TTA GCT CAC AGG TAG TGA GCA CTG TGT
181  Asp-Gly-Tyr-Asn-Asn-Tyr-Asn-Pro-Phe-Leu-Lys-Asn-Arg-Val-Ser-Ile-Thr-Arg-Asp-Thr 200

601  TCT GAG AAC CAG TTT TTC CTG AAG TTG CAT TCT GTG ACT ACT GAG GAC ACA GCT ACA TAT 660
   AGA CTC TTG GTC AAA AAG GAC TTC AAC GTA AGA CAC TGA TGA CTC CTG TGT CGA TGT ATA
201  Ser-Glu-Asn-Gln-Phe-Phe-Leu-Lys-Leu-His-Ser-Val-Thr-Thr-Glu-Asp-Thr-Ala-Thr-Tyr 220

661  TAC TGT GTA AGT TAC GGT AGT CGG AGG GGA GTT ACC TAC TGG GGC CAA GGC ACC ACT CTC 720
   ATG ACA CAT TCA ATG CCA TCA GCC TCC CCT CAA TGG ATG ACC CCG GTT CCG TGG TGA GAG
221  Tyr-Cys-Val-Ser-Tyr-Gly-Ser-Arg-Arg-Gly-Val-Thr-Tyr-Trp-Gly-Gln-Gly-Thr-Thr-Leu 240

721  ACA GTC TCC TCA 732
   TGT CAG AGG AGT
241  Thr-Val-Ser-Ser 244

```

Fig. 9

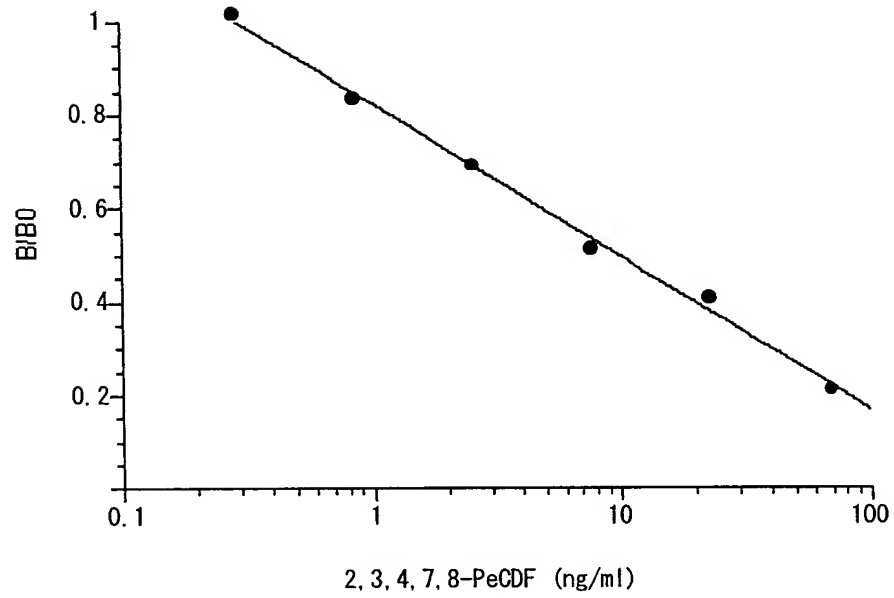


Fig. 10

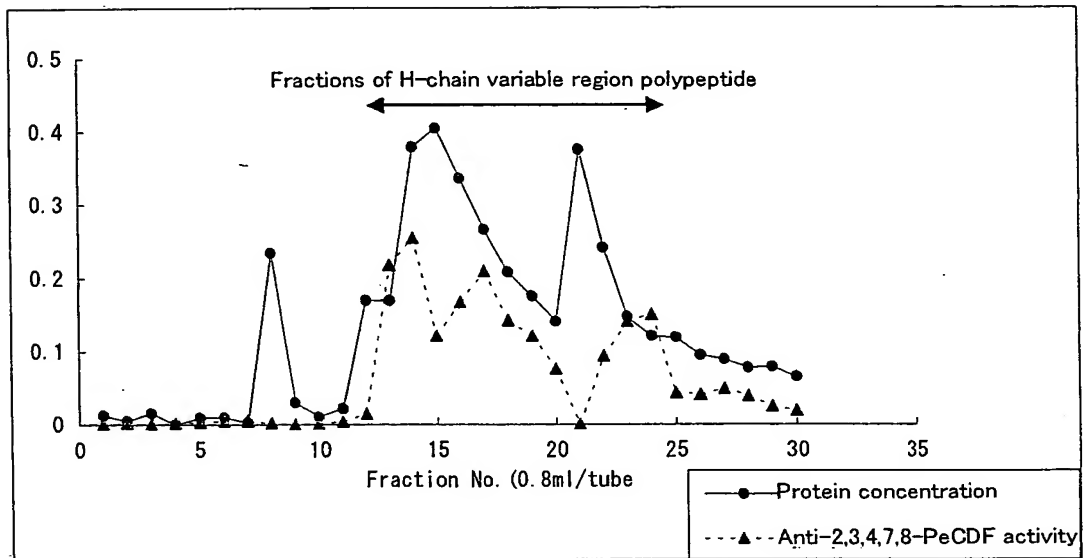


Fig. 11

	10	20	<u>CDR 1</u>	40
WT	EVKLVESGGGLVKPGGSLKLSCAAS	GFTTFSSYAMSWVRQT		
HL-M# 5	-----	-----	-----	-----
LH-M# 1	-----R-----	-----	-----	-----
LH-M# 2	-----	-----	-----	-----
LH-M# 3	-----	-----	-----	-----

	<u>CDR 2</u>	
	50	60
	70	80
WT	PEKRLWVVASFSNGGITYYPD	SVKGRFTISRDNARNILYL
HL-M# 5	-----I-----	-----
LH-M# 1	-----L-----	-----
LH-M# 2	-----V-----	-----
LH-M# 3	-----L-----	-----V-----

	<u>CDR 3</u>	
	90	100
	110	114
WT	QMTSLRSEDTAIIYYCARGYGPA	YWQGGLTVTSA
HL-M# 5	-----	-----S
LH-M# 1	-----	-----A
LH-M# 2	-----H-----	-----A
LH-M# 3	-----	-----A

Fig. 12

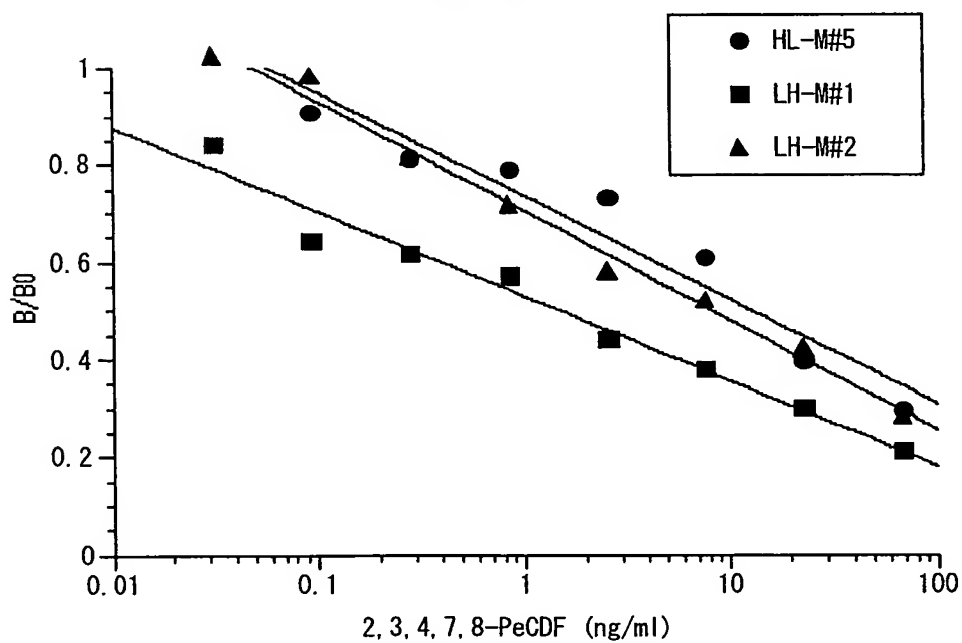


Fig. 13

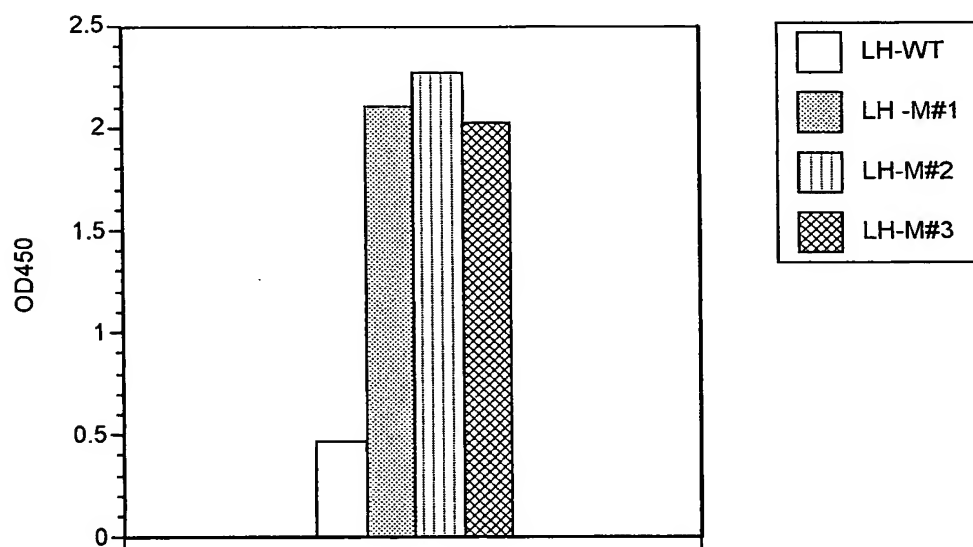
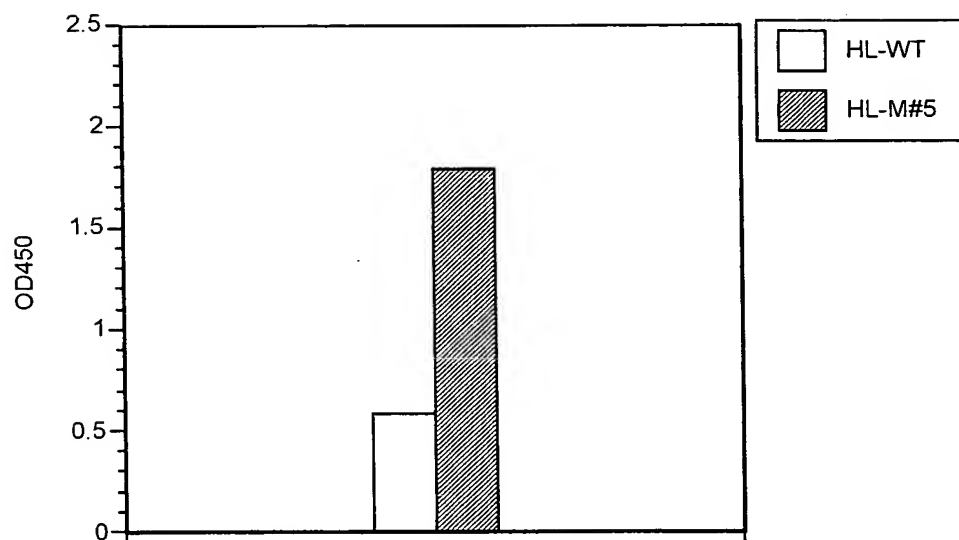


Fig. 14

